In the Claims:

1 (currently amended): A metallic seal component which is installable in a bore that includes a first diameter and a generally smooth recessed sealing surface which is undercut into the bore and which comprises a second diameter larger than the first diameter, the seal component comprising a shape memory alloy and an initial configuration that forms a clearance fit with the bore, wherein the seal component expands upon being heated to form a metal-to-metal seal with the recessed sealing surface.

2 (canceled).

3 (previously amended): A seal component as defined in claim 1, wherein the seal component is adapted to be energized by an energizing mandrel that comprises a shape memory alloy and that expands upon being heated.

4 (previously amended): A seal component as defined in claim 1, wherein the seal component comprises a seal backup spring.

5 (canceled).

6 (canceled).

7 (previously amended): A seal component as defined in claim 1, wherein the seal component comprises a sealing ridge that, in use, makes sealing contact with the sealing surface.

8 (previously amended): A seal component as defined in claim 1, wherein the seal component has a U-shaped cross-section.

9 (previously amended): A seal component as defined in claim 1, wherein the shape memory alloy is selected from the group consisting of NiTi, CuZnAl and CuAlNi.

10 (canceled).

11 (canceled).

12 (canceled).

13 (canceled).

14 (previously amended): A seal component as defined in claim 1, wherein the shape memory alloy comprises a one-way shape memory alloy.

15 (previously amended): A seal component as defined in claim 1, wherein the shape memory alloy comprises a two-way shape memory alloy.

16 (previously amended): A seal component as defined in claim 1, wherein the seal component comprises a bi-metallic construction.

17 (previously amended): A seal component as defined in claim 16, wherein the seal component comprises a U-shaped cross-section.

18 (previously amended): A seal component as defined in claim 1, wherein the seal component comprises a tubular cross-section.

19 (canceled).

20 (previously added): A seal component as defined in claim 1, wherein the seal component further comprises a corrosion-resistant material.

21 (new): A metallic seal component for sealing between an inner tubular member and an outer tubular member which comprises a generally smooth recessed sealing surface, the seal component comprising:

an annular sealing ring which in cross section comprises first and second axially extending leg members that are joined by a transverse base member;

the sealing ring being comprised of a shape memory alloy and having an initial configuration in which the first leg member is adjacent the inner tubular member and the second leg member is spaced apart from the outer tubular member;

wherein upon being heated the first leg member expands into sealing engagement with the inner tubular member and the second leg member expands into sealing engagement with the recessed sealing surface.

22 (new): A seal component as defined in claim 21, wherein the sealing ring is comprised of a shape memory alloy selected from the group consisting of NiTi, CuZnAl and CuAlNi.

23 (new): A seal component as defined in claim 21, wherein at least one of the first and second leg members comprises a sealing bump which is adapted to sealingly engage the corresponding inner or outer tubular member.

24 (new): A seal component as defined in claim 21, further comprising:

an annular member which is attached to at least one of the first and second leg members;

wherein the annular member is comprised of a shape memory alloy which comprises a coefficient of thermal expansion that is greater than that of the sealing ring.

25 (new): A sealing assembly for sealing between an inner tubular member and an outer tubular member which comprises a generally smooth recessed sealing surface, the sealing assembly comprising:

an annular sealing ring which in cross section comprises first and second axially extending leg members that are joined by a transverse base member;

the sealing ring comprising an initial configuration in which the first leg member is adjacent the inner tubular member and the second leg member is spaced apart from the outer tubular member;

an energizing mandrel which comprises a tip portion that is positioned in a gap between the first and second leg members;

the energizing mandrel being comprised of a shape memory alloy and having an initial configuration in which the radial width of the tip portion is less than or equal to the radial width of the gap;

wherein upon being heated the tip portion expands radially to force the first leg member into sealing engagement with the inner tubular member and the second leg member into sealing engagement with the recessed sealing surface.

26 (new): A sealing assembly as defined in claim 25, wherein the energizing mandrel is comprised of a shape memory alloy selected from the group consisting of NiTi, CuZnAl and CuAlNi.

27 (new): A sealing assembly as defined in claim 25, wherein at least one of the first and second leg members comprises a sealing bump which is adapted to sealingly engage the corresponding inner or outer tubular member.